

# Laboratory Test: Leukocyte Esterase (LE) Test

Standing Order in N.C. Board of Nursing Format

## INSTRUCTIONS FOR LOCAL HEALTH DEPARTMENT STAFF ONLY

Use the approved language in this standing order to create a customized standing order exclusively for your agency.

Print the customized standing order on agency letterhead. Review standing order at least annually and obtain Medical Director's signature.

Standing order must include the effective start date and the expiration date.

**In the temporary absence of STAT Gram stain capability, a medical director may opt to provide presumptive screening for male clients with risk history and signs and/or symptoms consistent with male urethritis. LE testing is a test of last resort and is not to be used in STD clinics for routine testing. LE is a presumptive test to be used only in temporary situations, when the LHD provider is not able to utilize NAAT, Gram stain or Gonorrhea (GC) culture.**

## Assessment

### Subjective Findings

A male client may present with one of the following subjective criteria that meet the requirement for the STD ERRN or RN to order LE testing if no other testing is available:

- Urethral discharge
- Dysuria
- Intrameatal itching
- Urethral inflammation
- Penile exposure in the last 60 days during unprotected oral, vaginal or anal intercourse
- Asymptomatic with sexual exposure within the last 60 days
- New or multiple sex partners
- Lack of condom use
- Anonymous sex
- Reports verified contact to: Chlamydia (CT), Gonorrhea (GC), Non-Gonococcal Urethritis (NGU), Pelvic Inflammatory Disease (PID), Mucopurulent Cervicitis (MPC), or Trichomonas vaginalis (TV)

### Objective Findings

In the absence of a Gram stain, NAAT or GC culture capability, a STD ERRN may order or perform a urine LE test on a male client if any one of the following is present on exam:

1. urethral discharge present in the urethral meatus
2. urethral discharge appears in the urethral meatus after the client milks his penis from the base to the tip
3. complains of dysuria or intrameatal itching without urethral discharge
4. asymptomatic (no dysuria and no discharge) male with risk factors for and/or exposure to an STD within the last 60 days

### Implementation

A registered nurse or STD ERRN employed or contracted by the local health department may order or perform an LE test on a urine specimen, if one of the subjective or objective criteria above exists.

### Nursing Actions

- A. LE dipstick test  
LE (WBC esterase) - is a screening test used to detect a substance that suggests there are white blood cells in the urine.  
*Note: A one-reagent LE urine dip strip is not available. LE testing is part of a multi-reagent urinalysis strip. If any other test results are abnormal, the RN is required to consult with the medical director or medical provider before treating or referring the client for primary care. UTI diagnosis and treatment is beyond the scope of practice for the STD ERRN or RN.*
- B. Specimen Collection:
  1. assure the client has not voided within the last 60 minutes
  2. instruct client to obtain a clean catch urine
  3. instruct client to void initial urine, approximately 5-10 mls, in a clean specimen container
  4. ask client to void additional urine in commode (additional urine will dilute the specimen)
  5. await test results from lab or perform LE and multi-reagent urine dip strip per vendors instructions

C. Interpretation of Lab Findings

Leukocyte Esterase test strip – Interpret according to the manufacturer’s instructions.

1. Positive Findings – dual drug treatment for presumptive GC is indicated
2. Negative Findings:

The following may cause a FALSE POSITIVE result

- Trichomonas infection
- heavy mucus discharge

The following may cause a FALSE NEGATIVE result

- high level of protein
- high level of vitamin C

**Criteria for Notifying the Medical Provider**

1. Contact the medical director or medical provider, if there is any question about whether to carry out any provision of the standing order.
2. Consult the medical director or medical provider, if:
  - blood present in urine or discharge
  - testicular pain and tenderness upon exam
  - swelling of epididymis or spermatic cords
  - scrotal edema
  - any other reagent test has abnormal findings per vendor instructions
  - lab results do not match objective clinical criteria for treatment of male urethritis and client is complaining of dysuria, intrameatal itching and/or discharge
  - client’s sexual risk history indicates high-risk behaviors for disease exposure and does not meet the criteria for treatment of male urethritis per standing order
  - oral temperature  $\geq 101^{\circ}$  F

**Follow Up**

1. arrange a medical referral for abnormal values per the order of the medical director or medical provider
2. asymptomatic males or absence of Gram stain capability: encourage the client to have a urine-based NAAT test via a reference lab to screen for Chlamydia and Gonorrhea or Chlamydia, Gonorrhea and Trichomonas when available

Approved by: \_\_\_\_\_ Date approved: \_\_\_\_\_  
Local Health Department Medical Director

Reviewed by: \_\_\_\_\_ Date reviewed: \_\_\_\_\_  
Director of Nursing/Nursing Supervisor

Effective Date: \_\_\_\_\_

Expiration Date: \_\_\_\_\_

**Legal Authority:** Nurse Practice Act, N.C. General Statutes 90-171.20(7)(a)(e)(f)&(8)(c)